

IV. *Catalogue of the Phytophagous Coleoptera of Japan, with descriptions of the species new to science.*
By JOSEPH S. BALY, F.L.S.

[Read 2nd December, 1872.]

THE great majority of the species which I have enumerated or described in the present paper were collected by Mr. George Lewis during his residence in Japan. It is, undoubtedly, the largest collection of Japanese *Phytophaga* ever brought to this country; but in order to make the list of species more complete I have added the descriptions of a few insects previously existing in my own cabinet, which do not appear to have been met with by him. Here and there, under the various genera, I have made a few remarks on the geographical distribution of the species belonging to each; and it is my intention in a second paper to give a tabular list, similar to the one given by Mr. F. Smith in his paper on the *Hymenoptera* collected by Mr. Wallace, in order to show, as far as possible, their geographical range.

Fam. DONACIDÆ.

Genus DONACIA, Fabr.

The single species taken by Mr. Lewis in Japan has a very wide range; it differs both in coloration and size; it is probably the *Donacia Javana*, Wiedeman.

Donacia æraria, Baly.

Phytoph. Malay., Ent. Trans. Lond., 3rd series, vol. iv. 7.

Hab.—Nagasaki and Hiogo, Japan; also Ceylon, India and the Malay Archipelago.

This insect was found by Mr. Lewis on a small species of water lily.

Fam. CRIOCERIDÆ.

Genus LEMA, Fabr.

Lac. Mon. Phyt. i. 303.

Of the thirteen species enumerated or described below, five are proper to Japan itself, and are all described here for the first time; six are found in the adjacent parts of the Asiatic continent; one is also found in Siberia, and two extend into Europe.

Lema concinnipennis, Baly.

Annals and Mag. Nat. Hist. 1865, p. 157.

Nigra, nitida, abdominis apice testaceo; pedibus cæruleo-nigris; supra cæruleo-metallica, antennis nigris; thorace longitudine vix latiori, ante basin transversim excavato, disco rude, hic illic crebre punctato, vittâ longitudinali centrali impunctato, lateribus vix pone medium constrictis et ibi rugosis; elytris punctato-striatis, punctis basi fortiter—pone medium modice—impressis; utrisque infra basin transversim excavatis.

Var. A. Thorace minus crebre punctato, abdomine ut in typo.

B. Abdomine ♀ toto nigro.

C. Corpore supra nigro.

Long. $2\frac{1}{2}$ — $3\frac{1}{4}$ lin.

Hab.—Nagasaki and Hiogo, Japan; also the coast of Tartary and Northern China. Found on the Chrysanthemum.

Forehead slightly raised, coarsely punctured, impressed in the middle with a deep longitudinal groove. Sides of thorax broadly constricted in the middle, a perpendicular space occupying the deepest part of the constriction, coarsely rugose; upper surface impressed with large deep punctures, which vary greatly in number; in most specimens they are crowded and confluent on the disk, having a central vitta free from punctures; the surface on either side this line is generally depressed, having the vitta itself raised and subcostate; the space between the punctures minutely but not closely punctured; in many specimens, especially the large ones, the larger punctures are much less numerous, and are scattered at distant intervals over the surface. Scutellum subquadrate, its surface impressed with shallow punctures, and sparingly clothed with adpressed sericeous hairs. Elytra strongly punctured

at the base; the punctures much smaller and less deeply impressed behind the middle; basilar space bounded beneath by a broad, well-defined excavation, which does not extend quite to the suture, but occasionally curves upwards along its edge to the scutellum. Body beneath black; abdomen clothed with very fine sericeous hairs; last three segments testaceous.

This insect (previously described by me from specimens brought from Northern China) varies so greatly in size and sculpturing of thorax, that I have thought it best, after examining the fine set of individuals placed in my hands by Mr. Lewis, to make a fresh diagnosis of the species; in the majority of the larger specimens from Japan the abdomen is entirely black; but I possess others, equally large, from the coast of Tartary, in which the apex of the abdomen is testaceous. I presume, therefore, that this is the normal colouring, the black apex being only a variety. All the specimens that I have examined, however they may differ in size or in the puncturing of the upper surface of the thorax, agree in having a broad longitudinal space (much more distinct than in *L. coronata*), occupying the deepest part of the lateral constriction, coarsely rugose.

Lema diversa.

Nigra, nitida, vertice scutelloque piccis, thorace elytrisque piceo-fulvis; thorace subquadrato, lateribus medio constrictis, disco impunctato, ante basin transversim sulcato, sulco medio unifoecolato; elytris utrisque infra basin transversim excavatis, fortiter punctato-striatis, interstitiis ad apicem subcostatis.

Long. $2\frac{3}{4}$ —3 lin.

Hab.—Nagasaki, on the Chrysanthemum; also China.

Forehead smooth, impressed with a deep longitudinal groove. Thorax scarcely broader than long, subcylindrical; sides broadly constricted in the middle, the deepest portion of the constriction rugose; disk smooth and shining, nearly impunctate, a longitudinal space in the centre impressed with a few fine punctures; a short distance in front of the basal margin is a distinct transverse groove, the centre of which is impressed with a single fovea. Scutellum piceous, glabrous. Elytra parallel, each transversely excavated below the basilar space, the excavation not extending to the suture; surface regularly

punctate-striate, the punctures large and deeply impressed on the basal half, somewhat smaller towards the apex. Body beneath clothed with adpressed silvery hairs. Intermediate tibiae in the ♀ simple.

Lema Lewisii.

Nigra, nitida, thorace elytrorumque apice rufo-testaceis, vertice obscure rufo; thorace longitudine vix latiori, lateribus medio constrictis, disco ante basin transversim sulcato, sub lente minute punctato, medio striâ longitudinali punctorum magis distinctorum impresso; elytris cæruleo-nigris, infra basin vix transversim depressis, subfortiter punctato-striatis, interstitiis ad apicem externisque totis subcostatis.

Long. $2\frac{1}{2}$ lin.

Hab.—Nagasaki.

Forehead distinctly raised, smooth, faintly wrinkled under a deep lens, impressed in the middle with a deep longitudinal groove. Thorax minutely punctured; disk impressed a short distance in front of the basal margin by a distinct transverse groove, on the centre of which is placed a single large fovea; on the middle of the disk is a longitudinal line, formed by a double row of fine punctures; on the sides in front are a few coarser punctures; sides constricted in the middle; a narrow space on the deepest part of the constriction coarsely rugose (these rugosities covered a much smaller space than in *L. concinnipennis*, and are only visible on the upper part near the disk. Scutellum subtrigonal, its apex rounded. Elytra deeply punctate-striate, the punctures very large on the basal half of the surface, rather smaller towards the apex; basilar space bounded beneath by a broad, shallow, ill-defined transverse space.

Lema coronata.

Nigra, nitida, verticis lineâ transversâ rufâ; thorace subquadrato, lateribus medio constrictis, disco sub lente minute punctato, ante basin transversim sulcato, sulco medio foveâ unicâ impresso; elytris infra basin transversim excavatis, sat fortiter punctato-striatis, interstitiis apicem versus externisque totis elevatis; tibiis intermediis intus ante medium dente parvo armatis.

Long. $2\frac{1}{2}$ lin.

Hab.—Nagasaki, on the Chrysanthemum.

This insect is so exactly similar in form and sculpturing to the two preceding species, that a detailed description is not necessary; its forehead, however, is flatter and less deeply grooved. I only know three specimens, all ♀; they agree entirely in coloration, and in having the inner surface of the intermediate tibiæ armed just before its middle with a small ill-defined tooth; this character will at once separate it from the two preceding insects. All the three species are very closely allied to *L. coromandeliana*, Fabr.: they may be distinguished from it by the following character amongst others: the deepest part of the lateral constriction of the thorax in *L. coromandeliana* and its varieties is entirely smooth, whilst in the three species before us it is always more or less rugose; also in *L. coromandeliana* the inner surface of the intermediate tibia in the ♂ (not the ♀, as in *L. coronata*) is armed with a small tooth.

Lema honorata.

Nigra, nitida, pedibus cyaneo-tinctis, capite thoraceque rufis, antennis (articulo primo prætermisso) nigris; thorace subcylindrico, latitudine distincte longiori, lateribus medio constrictis; disco ante basin leviter, transversim depresso, lævi, medio vittâ punctorum minutorum impresso; elytris metallico-cæruleis, infra basin transversim depressis, fortiter punctato-striatis, interstitiis ad apicem subcostatis; pedibus modice robustis.

Long. $2\frac{1}{2}$ —3 lin.

Hab.—Nagasaki, found on the Dioscorea.

Head strongly constricted on either side behind the eyes, the latter deeply notched; forehead impressed with a faint longitudinal groove. Thorax distinctly longer than broad; sides deeply constricted at the middle, the constriction smooth; upper surface transversely depressed in front of the base; disk very convex, somewhat subglobular, impunctate, with the exception of a double row of very fine punctures, which form a longitudinal line down the middle. Elytra oblong, parallel; above convex, slightly depressed below the basilar space, the latter slightly elevated; surface deeply punctate-striate, interspaces towards the apex subcostate. Legs moderately robust.

L. honorata must stand close to *L. Lewisii* and its allies: it may be known by the longer thorax, the smooth surface of its lateral constriction, and by the stout legs.

Lema Fortunei, Baly.

Trans. Ent. Soc. Lond. N. S. vol. v. 148.

Hab.—Nagasaki; also northern China.

✓ *Lema puncticollis*, Curtis.

Brit. Ent. vii. pl. 323.

Rugicollis, Suffr. Stettin. Ent. Zeit. 1841, p. 97; Lac. Mon. Phyt. i. 362.

Hab.—A single specimen from Nagasaki: this species is spread over a considerable area, being found in southern Russia, and the whole of middle and northern Europe, including England, where it occasionally occurs. The specimen taken by Mr. Lewis is deeply tinged with purple; in other respects it agrees with the European form.

Lema dilecta.

Nigra, nitida, supra cyanea, frontis maculâ pedibusque fulvis, genubus, tibiis tarsisque infuscatis; thorace subcylindrico, fere quadrato, lateribus medio constrictis; supra ante basin transversim sulcatò, disco ruguloso; elytris infra basin leviter transversim depressis, sat fortiter punctato-striatis, interstitiis ad apicem externisque totis subcostatis.

Long. $1\frac{1}{2}$ lin.

Hab.—Hiogo, Japan; a single specimen.

Very closely allied to *L. flavipes*, but at once to be known from that species by the shorter subcylindrical and rugose thorax. Forehead smooth, not longitudinally sulcate, being only slightly impressed with a small fovea; surface (under a lens) very finely and transversely strigose; in the middle between the upper portion of the eyes is an ill-defined fulvous spot; antennæ black, the second joint obscure picous. Thorax subcylindrical, constricted at the middle, and armed, in addition to the usual tuberosity in front, with a second, small, close to the basal margin; upper surface finely but distinctly rugose, impressed a short distance in front of the base with a transverse groove, which curves upwards on either side to join the lateral constriction. Elytra sculptured in a similar manner to *L. flavipes*.

Lema flavipes, Suffr.

Lac. Mon. Phyt. i. 367.

Var. A. Tibiis tarsisque infuscatis, cæteris ut in typo.

Hab.—Nagasaki; a single specimen of var. A (Mr. Lewis). The same variety has been sent from Tsu Sima by Messrs. Bowring and A. Adams. I have also received it from eastern Siberia (the borders of the River Angara); the form with entirely pale legs appears to be confined to eastern Europe.

✓ *Lema Downesii*, Baly.

An. and Mag. Nat. Hist. 1865, p. 156.

Nigro-suturalis, Clark, Append. Catal. Phyt. p. 37.

Hab.—Nagasaki, also Bombay; sent from the latter locality by Dr. E. Downes.

Lema Adamsii, Baly.

An. and Mag. Nat. Hist. 1865, p. 156.

Quadrupunctata, Swartz in Schönh. Syn. Ins. ii. 281.

Var. A. Elytrorum thoracisque maculis unâ vel alterâ obsoletis.

Var. B. Elytrorum maculis totis immaculatis.

Var. C. Elytris nigris, fulvo-limbatis; femoribus postice ante apicem nigro-notatis.

Hab.—Nagasaki; 2,000 feet above the sea level; also Chusan; collected by Mr. A. Adams.

This species, which was previously described by me from a single specimen taken at Chusan by Mr. A. Adams, proves to be very variable; no two individuals taken by Mr. Lewis agreeing exactly in their markings.

I have no doubt but that the description by Swartz in Schönherr of *L. quadrupunctata* was drawn up from a variety of this species with immaculate thorax. The name, however, cannot stand, having been previously used by Olivier for an insect belonging to the same genus.

Lema delicatula.

Fulva, nitida, capite (collo prætermisso) nigro, antennis nigro-piceis aut nigris, subtus pallidis; scutello, tibiis apice tarsisque picco-tinctis; elytris sat fortiter punctato-striatis,

infra basin transversim excavatis, cyaneis, fasciâ latâ prope medium positâ, fulvâ, ornatis.

Long. $1\frac{3}{4}$ —2 lin.

Hab.—Nagasaki.

Head shining black, the neck fulvous; vertex smooth, impressed with a very short longitudinal groove. Thorax very slightly broader than long; sides deeply constricted in the middle; above convex, transversely grooved in front of the base, shining, very minutely and somewhat remotely punctured, the puncturing being visible only under a deep lens; on the centre of the disk, however, is a longitudinal space, impressed with a double row of rather larger but still very fine punctures. Scutellum subtrigonal, fulvous, edged with piceous. Elytra much broader than the thorax, deeply and strongly punctate-striate; on the middle third of the elytra is a broad common transverse fulvous fascia.

✓ *Lema 10-punctata*, Gebler.

Lac. Mon. Phyt. i. 597.

Hab.—Japan. Common on the coasts, where it is found on the tea plant; also Northern China and Siberia.

This species, unknown to Lacordaire, is a true *Lema*, and not a *Crioceris*, as suspected by that author. It varies greatly in the markings on the elytra; they are sometimes nearly obsolete.

Genus CRIOCERIS, Geoff.

Lac. Mon. Phyt. i. 546.

Four species of this genus are known from Japan; two, *rugata* and *parvicollis*, are not up to the present time found elsewhere; the third, *subpolita*, is common to Japan and Northern China, whilst the fourth, *14-punctata*, is also found in Northern China, Mantchuria, Siberia, and Eastern Europe.

Crioceris rugata, Baly.

Annals and Mag. Nat. Hist. 1865, p. 154.

Hab.—Hiogo.

✓ *Crioceris parvicollis*.

Nigro-cuprea, nitida, femoribus basi, pectore, abdomine-que rufo-fulvis, antennis nigro-cyaneis, apice nigris, thorace subquadrato, subcylindrico, lateribus modice constrictis,

profunde punctato, lateribus subtus limbisque apicali et basali, hoc medio late interrupto, obscure rufis; elytris thorace multo latioribus, oblongis, rufo-fulvis, cupreo vix micantibus, profunde punctato-striatis; scutello griseo-hirto.

Long. 3—3½ lin.

Hab.—Nagasaki.

Head deeply constricted behind the eyes, coarsely punctured, front deeply trisulcate; antennæ robust, more than half the length of the body, six or seven lower joints nigro-cyaneous, the rest black; basal joints nearly glabrous, the others clothed with adpressed black pubescence. Thorax subquadrate, sides moderately constricted, deeply and coarsely punctured, interspaces shining, impunctate. Scutellum narrowly trigonate, clothed with adpressed griseous hairs. Elytra much broader than the thorax, oblong, parallel; above convex, not depressed below the basilar space, deeply and regularly punctate-striate, interspaces towards the apex slightly convex.

C. parvicollis is nearly allied to *C. rugata*, but may be known by the metallic tinge of its body, and by the hairy scutellum; both species ought to stand close to *C. impressa*, Fabr.

✓ *Crioceris subpolita*, Motsch.

Etud. Ent. 1860, p. 22.

Var. A. Pectoris medio femoribusque basi rufo-fulvis, abdomine sæpe immaculato; mesosterni apice valde dilatato.

Crioceris lateritia, Baly, Trans. Ent. Soc. 3rd Series, vol. i. p. 613.

Var. B. Minor; corpore subtus omnino piceo.

Hab.—Nagasaki; var. B, Hiogo; also Northern China; sent by Mr. Fortune.

This insect varies greatly in the colouring of its under surface; the form of the apex of the mesosternum is also very variable; in some specimens it is of the usual shape, in others it is strongly dilated, every intermediate form existing between the two extremes. A type communicated to me by M. Motschulsky, which I compared with specimens from Northern China (described by me as *C. lateritia*), was very dark-coloured beneath, and had the mesosternum smaller than usual.

Crioceris 14-punctata, Fabr.

Lac. Mon. Phyt. i. 584.

Hab.—Tsu Sima, Japan; it is also met with in North-

ern China, Mantchuria, Siberia, and Eastern and Central Europe.

Mr. Lewis has not taken this insect; the specimens I have seen came from Tsu Sima, a small island in the Straits of Corea, to the west of Simono-saki, and were found by Messrs. Bowring and A. Adams; the insects from China and Japan have the black spots on the elytra more fully developed than those from Siberia and Eastern Europe.

Fam. MEGALOPIDÆ.

Genus TEMNASPIS, Lac.

Mon. Phyt. i. 716.

Temnaspis Japonicus.

Elongatus, niger, nitidus, pube sat erectâ sordide griseâ aut nigrâ vestitus; abdomine, thorace elytrisq; fulvis, clypeo antice, palpis tibiis posterioribusq; basi pallide piceis, vertice foveâ magnâ impresso.

Long. 4 lin.

Hab.—Nagasaki.

Labrum clothed with coarse fulvous hairs; clypeus transverse, its lower half pale piceous; face between the eyes distantly punctured, its pubescence black, vertex impressed in the middle with a large oblong fovea. Thorax subquadrate, constricted at the base and apex, furnished on either side just in front of the posterior angle with a subconical tuberosity; disk with a longitudinal depression, running down the middle for nearly its whole length; surface distantly punctured. Scutellum broad, triangular, its apex bisinuate. Elytra more closely and coarsely punctured than the thorax, clothed with dirty white hairs, intermingled here and there with black. Hinder thighs thickened, armed beneath near the apex with two acute piceous teeth; the extreme apex of the thigh itself, the basal third of the hinder tibiae, together with the extreme base of the intermediate pair, also piceous.

Genus PEDRILLIA, Westw.

Trans. Ent. Soc. Lon. 3rd Series, vol. ii. p. 280.

Two species of the above genus have been already described; one by Westwood, from India; the other by the late Rev. H. Clark, from Ceylon.

Pedrillia annulata.

Elongata, fusco-fulva, pilis subdepressis griseis vestita, antennis, basi exceptis, capitis plagâ frontali, thoracis subcordatis vittâ centrali lateribusque apice, mesothoracis utrinque maculâ, pleuris, abdominis apice, femoribus tibiisque apice tarsisque nigro-piceis; elytris subcrebre fortiter punctatis, utrisque plagâ magnâ flavâ, nigro-annulatâ, pone medium positâ, ornatis.

Long. 2 lin.

Hab.—Japan. Collected by Mr. Moor.

Head coarsely punctured, eyes deeply notched; antennæ half the length of the body, joints nigro-piceous above, obscure fulvous beneath; two basal joints entirely fulvous; front with a large subrotundate nigro-piceous patch, which occupies nearly the whole space between the upper portion of the eyes, and sends a short ramus upwards to the vertex. Thorax scarcely broader across its middle than long, subcordate; upper surface transversely convex, rather closely punctured, a broad vitta on the middle of the disk, extending from the base nearly to the apex, and the sides in front nigro-piceous; the extreme lateral border also narrowly edged with black. Scutellum triangular, its apex truncate, the upper surface closely punctured, pale picous. Elytra narrowly oblong, slightly dilated posteriorly; convex, feebly depressed below the base, the basilar space indistinctly raised, surface coarsely and deeply punctured; each elytron behind the middle with a large subrotundate obscure flavous patch, broadly margined with nigro-piceous. Hinder thighs thickened.

I only know a single specimen of this species in my own cabinet.

Fam. CLYTHRIDÆ.

Genus CLYTHRA, Laichart.

Lac. Mon. Phyt. ii. 190.

Clythra Japonica.

Subelongata, convexa, nigra, nitida, antennarum basi thoraceque fulvis, hoc basi utrinque sinuato, angulis posticis distinctis; supra lævi, fasciâ latâ undulatâ, utrinque abbreviatâ, interdum medio interruptâ, nigrâ ornato; scutello trigonato, fulvo; clytris leviter punctatis, nigris, fasciâ latâ communi prope medium positâ, et utrisque maculâ subapicali, fulvis ornatis.

Long. $2\frac{1}{2}$ lin.

Hab.—Nagasaki.

Head slightly enlarged in the ♂, smooth and shining, a broad space between the eyes slightly depressed; its surface, together with the lower portion of the face itself, faintly wrinkled; eyes large, very slightly prominent, feebly notched within, surrounded by a sunken orbit, the surface of which is distinctly but not deeply punctured, and sparingly clothed with white hairs. Antennæ with the four lower joints fulvous, more or less stained with piceous, the rest nigro-piceous; fourth and six following joints trigonate, the terminal joints ovate. Thorax more than twice as broad as long, sides subparallel at the base, thence rounded and converging to the apex; hinder angles distinct, their apices obtuse; basal margin truncate on either side, the basal lobe broad, slightly produced, broadly rounded; upper surface smooth, impunctate. Scutellum large, trigonate, its apex acute; surface fulvous, stained at the base with piceous. Elytra oblong, not broader than the base of the thorax, sides feebly lobed at the base; above convex, finely punctured, shining black, with a faint bluish tinge, a broad common band across the middle, dilated on the suture, and a large transverse subapical patch on each elytron, not touching either the sutural or apical margins, bright fulvous: in some specimens there are several small spots of the same colour on the basal margin. Legs robust in the ♂, rather more slender in the ♀. This insect must stand close to *C. atraphaxides* and its allies.

Clythra leviuscula, Ratzeburg.

Lac. Mon. Phyt. ii. 206.

Hab.—Hiogo; a single specimen found on the oak. I also possess it from Chusan, collected by Mr. A. Adams; another specimen from Vladimir Bay, Mantchuria, taken by the same gentleman, has the hinder spot on the elytra nearly obsolete; this species is spread over the north of Asia, and nearly the whole of Europe.

Genus GYNANDROPHITALMA, Lac.

Lac. Mon. Phyt. ii. 256.

Three species of this genus are at present known from Japan; none of them, however, are peculiar to that country; one also inhabits India, the others extend over Northern Asia and a great part of Europe.

Gynandrophthalma chrysomeloides, Lac.

Mon. Phyt. ii. 268.

Hab.—Kawachi, Japan, also India.*Gynandrophthalma cyanea*, Fabr.

Lac. Mon. Phyt. ii. 301.

Hab.—Japan (Mr. Moor); also Siberia and Central Europe.*Gynandrophthalma aurita*, Fabr.

Lac. Mon. Phyt. ii. 304.

Hab.—Lepedeza (Mr. Lewis); Matsmai, Jesso (Mr. A. Adams); also Siberia and Central Europe.

The specimens from Japan are all of large size, and those collected by Mr. Lewis have all the legs entirely yellow; the one from Jesso has the tarsi stained with piceous.

Genus COPTOCEPHALA, Lac.

Mon. Phyt. ii. 345.

The two species below both have in the *male* very large heads and prominent eyes; Lacordaire has separated the first, *C. pallens*, and formed it into his sub-genus *Physauchenia*; had he seen the typical form of the insect, which closely resembles in pattern all the other species of *Coptocephala*, he probably would not have done so; the characters given by him for the sub-genus are very slight and unsatisfactory; the second species is now described for the first time, and is at present confined to the Japanese Islands.

Coptocephala pallens, Fabr.*Physauchenia pallens*, Lac. Mon. Phyt. ii. 368.*Hab.*—Nagasaki, also China and India.*Coptocephala orientalis*.

Elongata, subcylindrica, subtus nigra, pube adpressâ griseâ vestita; supra nigra, cyaneo-micans, antennis nigris, basi fulvis; thorace elytrisq[ue] fulvis, illo lævi, his tenuiter punctatis, margine basali, maculâ humerali fasciâq[ue] transversâ pone medium positâ nigris.

Mas.—Capite oculisque magnis, mandibulis incrassatis.

Long. $2\frac{1}{3}$ — $2\frac{2}{3}$ lin.

Hab.—Hioogo.

Head prominent, much swollen and developed below the eyes in the δ , of normal size in the η ; jaws in the former sex very large, stained with rufous at the apex; eyes large, prominent, slightly notched within; vertex swollen, smooth, impunctate; face between the eyes irregularly excavated, but not punctate; clypeus deflexed, its anterior edge angulate-emarginate; labrum in the δ large; four lower joints of antennæ fulvous, stained above with piceous, the rest black. Thorax transverse, sides broadly rounded at the base, thence obliquely converging to the apex; basal margin reflexed, slightly sinuate on either side, basal lobe slightly produced; upper surface smooth, impunctate, with the exception of a few punctures scattered along the base. Scutellum elongate-trigonate, smooth, impunctate. Elytra not broader than the base of the thorax, oblong, sides slightly lobed at the base; above convex, distinctly and somewhat closely punctured; a narrow line on the inner half of the basal margin, a humeral patch and a short transverse band just beyond the middle of each elytron (this latter often interrupted) black. Legs entirely black.

This species closely resembles *C. floralis*; it may be known by its entirely black legs, by the larger head in the δ , and also by the absence of the punctures on the face, visible in the former insect.

Fam. LAMPROSOMIDÆ.

Genus LAMPROSOMA, Kirby.

Lac. Mon. Phyt. ii. 574.

Lamprosoma cupreatum.

Breviter ovatum, postice attenuatum, convexum, cupreum, antennis corporeque inferiori nigris; thorace subremote, subtenuiter punctato; clytris minus fortiter punctatis, punctis rotundatis, subseriatim dispositis.

Long. $1\frac{1}{2}$ lin.

Hab.—Nagasaki.

Head finely punctured. Thorax twice as broad at the base as long; sides obliquely converging from behind forwards, more quickly rounded near the apex; basal margin oblique on either side; basal lobe moderately produced,

rounded; disk finely but not closely punctured. Elytra more strongly punctured than the thorax, the punctures round, not very deeply impressed, indistinctly arranged in striae near the suture.

Lamprosoma nigro-cæruleum.

Ovatum, convexum, postice attenuatum, nigro-cæruleum, metallicum, subtus nigrum; thorace subremote, tenuiter punctato; elytris subfortiter punctatis, punctis subseriatim dispositis.

Long. $1\frac{1}{4}$ lin.

Hab.—Nagasaki, on the ivy.

Lower portion of face more or less deeply excavated, forehead finely and remotely punctured. Thorax with the sides obliquely narrowed from base to apex, rather less oblique at the base, hinder angles obtuse; basal margin oblique on either side, the basal lobe very slightly produced, subangulate, disk distinctly but finely punctured, the punctures subremote. Elytra more strongly punctured than in *L. cupreatum*, the punctures subrotundate.

The present insect may be at once distinguished from the preceding by its different coloration and by its longer and narrower form; both species are separated from our *L. concolor* (to which they are closely allied) by the absence of the deeper punctures which form regular longitudinal striae on the elytra of that insect.

Fam. CHILAMYDÆ.

Genus CHILAMYS, Knoch.

Lac. Mon. Phyt. ii. 649.

Chlamys Lewisii.

Elongata, parallela, nigra, opaca, hic illic maculis nonnullis parvis rufo-fulvis ornata, antennis pedibusque obscure fulvis, his dorso infuscatis; thorace rude et crebre punctato, dorso gibboso, gibbo valido, postice compresso, rete elevato, hic illic rufo-tincto ornato; elytris parallelis, rugoso-punctatis, disco interiori ante medium tuberculis parvis obscure rufis, vix pone medium tuberculo magno, transversim compresso, instructis; apice tuberculis nonnullis subconicis, hic illic cretâ elevatâ connexis, instructo; disco exteriori laxè elevato-reticulato.

Long. $1\frac{3}{4}$ —2 lin.

Hab.—Nagasaki.

Face deeply punctured, the basal joints of the antennæ, the labrum, a triangular patch on the clypeus, and a spot on either side of the forehead, pale piceous. Thorax coarsely and closely punctured, disk elevated into a strong gibbosity, compressed behind, and bounded posteriorly on either side by an oblique groove; its surface is covered with an irregular strongly-raised reticulation, sides with some ill-defined, irregular tuberosities. Elytra parallel, strongly lobed at the base, strongly rugose-punctate; inner disk with six or seven piceous tuberosities placed before the middle, and a short transverse, strongly-raised ridge just behind the middle near the suture; hence to the apex the surface is covered with more or less compressed large conical tubercles, which are connected here and there by irregular ridges; outer disk coarsely elevate-reticulate.

Chlamys interjecta.

Oblonga, nigra, opaca, antennis piceis, basi obscure fulvis; thorace rugoso-tuberculato, dorso gibboso, gibbo valido, apice longitudinaliter canaliculato; elytris granulosis, sat fortiter, subseriatim punctatis, tuberculis validis plurimis instructis.

Long. $1\frac{3}{4}$ lin.

Hab.—Nagasaki.

Head closely punctured; five lower joints of antennæ fulvous, the rest piceous. Thorax twice as broad at the base as long, sides obliquely converging from base to apex; upper surface rugose; disk raised into a stout gibbosity, somewhat compressed behind, and bounded on either side posteriorly by an oblique depression; its surface, as well as that of the rest of the thorax, covered with raised tubercles, apex and anterior face of the gibbosity impressed with a broad longitudinal groove. Elytra not broader than the base of the thorax; sides strongly lobed at the base, above convex, granulose, the humeral callus thickened, rugose; surface distinctly punctured, the punctures irregularly arranged in longitudinal striae; on each elytron are numerous strong tubercles; five or six smaller than the others are placed on the anterior disk, one longer and transversely convex, situated just beyond the middle near the suture, and is connected by an oblique ridge with a coarse reticulation just below the humeral callus; lastly, seven or eight large tuberosities cover the entire apical third of the elytron.

Chlamys spilota.

Elongata, parallela, convexa, nigro-picea, opaca, obscure fulvo-maculata, antennis pedibusque obscure fulvis, his nigro-piceo maculatis, posticis fere totis nigro-piceis, thorace rude rugoso-punctato, flavo-maculato, maculis plus minusve elevatis, hic illic saepe confluentibus; medio gibboso, gibbo apice leviter sulcato; elytris profunde punctatis, subnitidis, obscure fulvo-maculatis, tuberculis nonnullis, inter se rete elevato connexis, instructis.

Long. $1\frac{1}{4}$ — $1\frac{2}{3}$ lin.

Hab.—Japan (Mr. Moor).

Head deeply and coarsely punctured, the clypeus and two large spots on the front fulvous; the frontal patches are smooth and distantly punctured; they occupy nearly the whole space between the upper half of the eyes, and each send a small branch from the lower extremity into the emargination of the eyes. Thorax rugose-punctate, covered in front and on the sides with irregular, ill-defined, slightly-raised obscure fulvous spots; disk gibbous, the gibbosity bounded on either side by an oblique depression, compressed posteriorly, its apex faintly sulcate; on its anterior surface are a number of small raised reticulations. Elytra quadrate-oblong, sides with the basal lobe strongly produced; upper surface deeply punctured, the punctures irregularly arranged in longitudinal striae; each elytron with a number of large, strongly-raised, irregular tubercles, connected here and there by irregular ridges; four of these are transversely compressed, and are placed as follows: one just below the basilar space, on the middle of the disk; the second just below the middle, close to the suture; the third on the outer disk, parallel with the last; and the fourth near the outer margin, close to the apex. In the inner disk, near the suture, halfway between the middle and the apex, is a large conical tuberosity, its apex truncate.

Fam. CRYPTOCEPHALIDÆ, Lac.

Genus CÆNOBIUS, Suffr.

Lin. Ent. xi. 61.

The species described by Suffrian are found in Caffraria; it is, therefore, very remarkable to find the genus reappear in such a totally different part of the world. Mr. Lewis

has brought over two species, which agree entirely in generic characters with their African brethren.

Cænobius sulcicollis.

Ovatus, convexus, niger, nitidus, pedibus quatuor anterioribus, capite thoraceque piceo-fulvis, antennis flavis, extrorsum nigris, pedibus posticis piceis; thorace nitido, disco anteriori lævi, impunctato, utrinque pone medium lineâ obliquâ impresso, ante basin distincte sed leviter punctato; elytris sulcato-striatis, striis tenuiter punctatis; interstitiis disci interioris planis, ad apicem obsolete convexis, iis disci exterioris convexis.

Long. $1\frac{1}{4}$ lin.

Hab.—Nagasaki.

Eyes large, reniform, touching each other at their apices, antennæ slender, five lower joints pale yellow, six outer slightly compressed, black. Thorax twice as broad as long at the base, sides rounded and converging at the base, obliquely converging in front; basal margin oblique on either side, basal lobe slightly produced; above convex, subcylindrical, the apical border distinctly margined; smooth and shining, impressed on either side with an oblique groove, which runs outwards and upwards towards the lateral margin; space behind these grooves impressed with large round shallow punctures. Elytra scarcely broader than the thorax at their base, slightly broader posteriorly; above convex, sulcate-striate, interspaces on the inner disk flattened.

Cænobius piceus.

Ovatus, convexus, piceus, nitidus, pedibus antennisque pallidioribus, his basi fulvis; thorace remote punctato; elytris sulcato-striatis, striis tenuiter punctatis, interstitiis convexis.

Long. 1 lin.

Hab.—Nagasaki; a single specimen only.

Eyes large, reniform, their apices nearly touching, being only separated from each other by a very narrow line; antennæ pale piceous, five lower joints, together with the basal half of the sixth, fulvous; six outer joints compressed, trigonate. Thorax nearly twice as broad at the base as long, sides rounded and converging from base to apex, basal margin oblique and faintly bisinuate on either side, basal lobe distinctly produced, obtusely angled; upper

surface remotely punctured; along the basal margin is placed a single row of punctures. Scutellum narrowly ovate. Elytra rather broader than the base of the thorax, slightly narrowed posteriorly, convex, sulcate-striate, each stria impressed with a single row of fine, elongate punctures; interspaces convex, smooth, impunctate.

Genus DIORYCTUS, Suffr.

Lin. Ent. xiv. 3.

Only two species of this rare and interesting genus have previously been described; one (the type) by Suffrian, from Ceylon, the other by myself from Sumatra, brought from that country by Mr. Wallace.

I possess a fourth species, undescribed, sent from Siam by the late M. Mouhot; all, as will be seen, are Asiatic.

Dioryctus Lewisii.

Rotundato-ovatus, valde convexus, obscure piceus; subtus niger, pedibus antennisque flavis; thorace suberebre punctato; elytris regulariter punctato-striatis, striis leviter sulcatis, interstitiis minute punctatis.

Long. $1\frac{1}{4}$ lin.

Hab.—Nagasaki; a single specimen only.

Thorax more than twice as broad at the base as long, sides rounded and quickly converging from base to apex; basal margin distinctly bisinuate on either side; basal lobe strongly produced, acute, concealing the minute scutellum; above convex, somewhat closely impressed with oblong punctures. Scutellum minute. Elytra convex, sides strongly lobed at the base; regularly punctate-striate, the striae slightly sulcate; interspaces flattened on the inner disk, convex towards the apex and on the outer disk, finely but not closely punctured. Prosternum transverse, its surface transversely concave, the medial longitudinal ridge being obsolete.

The present species, of which Mr. Lewis possesses a single specimen, differs from the type in the central ridge on the prosternum being obsolete; in all other generic characters it closely agrees.

Genus CRYPTOCEPHALUS, Geoff.

Suffr. Lin. Ent. ii. 13.

All the fifteen species enumerated or described in the

present genus are (although often closely resembling European forms) extra European; eight are peculiar to Japan; seven are common to those islands and to the adjacent parts of the Asiatic continent.

Cryptocephalus trifasciatus, Fabr.

Suffr. Lin. Ent. xiv. 12.

Hab.—Nagasaki, also China; the specimens collected by Mr. Lewis are much brighter and less deeply marked with black than those that I possess from China.

Cryptocephalus perelegans.

Anguste oblongus, fulvus, nitidus, antennis extrorsum nigris, thorace piceo-fulvo, margine antico, vittâ laterali, intus late emarginato, et utrinque vittâ obliquâ, ante basin positâ, flavis; elytris piceis, fortiter punctato-striatis; utrisque pustulis octo, 3-2-2-1 positis, flavis ornatis.

Long. $1\frac{3}{4}$ —2 lin.

Hab.—Nagasaki.

Head smooth, face flat, impunctate; eyes elongate, broadly emarginate; antennæ slender, two-thirds the length of the body, four lower joints fulvous, the fifth piceous, the rest black. Thorax twice as broad at the base as long; basal margin concavely excavated on either side, basal lobe scarcely produced; sides rounded at the base, thence obliquely converging to the apex, hinder angles produced posteriorly, acute; above transversely convex, surface smooth, impunctate; piceo-fulvous, the extreme basal border narrowly edged with black; a broad lateral vitta, deeply emarginate within, and an oblique patch on either side at the base, together with the apical border, flavous; these flavous markings are usually ill-defined. Scutellum subcordate, smooth, nigro-piceous, its disk fulvous. Elytra not broader than the base of the thorax, sides moderately lobed at the base; above convex, thickened in the immediate neighbourhood of the scutellum, punctate-striate, the punctures large, piceous, interspaces convex; striæ on the middle disk, below the humeral callus, irregular and ill-defined; each elytron with eight yellow spots, arranged as follows: three at the base attached to the basal margin, sometimes confluent, the first placed close to the suture, the second just within the humeral callus, and the third on the outer margin (this last is sometimes obsolete); two just before the middle, oblong, parallel, the inner one near

the suture, the other on the outer disk; two just below the middle, also parallel, one on the inner disk, subrotundate, the other subtrigonal, near the outer margin, and lastly, one transverse, subapical; this patch is often confluent with the outer patch of the row above. Anterior coxæ and thighs stained with flavous.

This species, which strongly resembles in coloration many North American species of the genus, must stand close to *C. bissexguttatus*, Boh.

Cryptocephalus tetradecaspilotus.

Oblongus, supra pallide flavus, vertice, antennis extrorsum, thoracis maculis quatuor, scutello et elytrorum suturâ maculisque 10 nigris; subtus niger, abdominis limbo pedibusque flavis.

Long. $1\frac{3}{4}$ — $2\frac{1}{4}$ lin.

Hab.—Nagasaki.

Head distinctly punctured, parts of the mouth and a small patch at the base of each antenna piceous. Thorax convex, smooth, distinctly punctured, a pair of large roundish patches placed one on either side of the disk, and a second pair, each transversely trigonal, attached to the hinder border of the thorax for nearly its whole length, sometimes confluent with the anterior pair, black. Scutellum semiovate, shining black, impressed with a few small, but deep, punctures. Elytra oblong-quadrate, each rounded at the apex; regularly punctate-striate, the striæ very slightly sulcate, the punctures piceous; interspaces smooth, obsoletely convex; basal and sutural borders, and five spots on each elytron: (two near the base, parallel, the inner one round, the outer one oblong; two, also parallel, placed just beyond the middle, the inner less regularly rounded, the outer broadly oblong, and the fifth transversely rotundate, placed near the apex,) black. Body beneath black; sides and apex of abdomen, together with the legs, pale yellow.

This insect must be placed close to *C. sannio*, Boh.

Cryptocephalus scitulus.

Anguste oblongus, convexus, piceo-fulvus, nitidus, antennis (basi exceptâ) nigris; thorace convexo, nitido sub lente tenuissime et subremote punctato; elytris sat fortiter punctato-striatis, interstitiis inerassatis; utrisque vittâ latâ, a basi fere ad apicem extensâ, nigrâ ornatis.

Var. A. *Elytris nigris*, margine exteriori angusto vittâque communi, postice angustatâ, ante apicem abbreviatâ, picco-fulvâ.

Long. 2 lin.

Hab.—Hiogo, on oak.

Head coarsely but not closely punctured; face flat; three lower joints pale fulvous, the rest black; antennæ three-fourths the length of the body. Thorax convex, subcylindrical when seen from above, sides converging and slightly rounded from base to apex; surface very shining, stained with piceous. Elytra subquadrate-oblong, sides slightly lobed at the base; surface distinctly punctate-striate, interspaces smooth, convex.

Cryptocephalus pilosus.

Oblongus, convexus, griseo-pilosus, subtus nigro-viridis, metallicus, epipleuris pedibusque viridi-metallicis; supra late viridi-metallicus, ore rufo-fulvo; antennis nigris, basi fulvis; thorace convexo, ante basin transversim excavato, suberebre punctato, punctis oblongis; elytris fortiter subseriatim punctatis, punctis piceis; utrisque limbo angusto maculisque tribus (2-1 dispositis) viridi-metallicis.

Long. $2\frac{1}{2}$ lin.

Hab.—Japan, also China; collected in both localities by Mr. Lewis.

Head distinctly but not closely punctured; face plain, clothed with long adpressed griseous hairs; eyes broadly emarginate; antennæ slender, filiform, basal joint stained with metallic green; its under surface, together with the whole of the three following joints, obscure fulvous. Thorax scarcely twice as broad at the base as long; sides regularly rounded and converging from base to apex; above convex, transversely excavated in front of the scutellum, somewhat sparingly clothed with short decumbent hairs; disk rather deeply impressed with oblong punctures. Scutellum trigonate, deeply punctured. Elytra scarcely broader than the base of the thorax, quadrate-oblong; sides feebly lobed at the base; above convex, thickened in the immediate neighbourhood of the scutellum, clothed with suberect hairs; rufo-fulvous, strongly punctured, the punctures piceous, irregularly arranged in ill-defined longitudinal rows (about ten in number), the interspaces also punctured; each elytron with the entire limb and three

large patches, (the first placed below the base, halfway between the suture and the humeral callus, the second on the callus itself, and the third, larger than the others, covering the centre of the disk, just below its middle,) metallic-green.

This species may be separated from *C. ilicis* and its congeners by the pubescence on the surface of the elytra.

Cryptocephalus signaticeps.

Late oblongus, convexus, niger, nitidus, antennis basi fulvis, clypeo, femoribusque ante apicem flavo-albo notatis; thorace elytrisq. rufo-testaceis, illo tenuiter punctato, vittis duabus basi dilatatis, a basi fere ad apicem extensis, intus ante medium late emarginatis, lineâq. longitudinali a basi ad medium productâ nigris; margine laterali flavo-albo; elytris distincte punctatis, punctis irregulariter dispositis, utrisque lineâ suturali maculisque tribus (2-1 dispositis) nigris.

Long. $2\frac{1}{4}$ — $2\frac{3}{4}$ lin.

Hab.—Nagasaki, on the *Alnus Japonica*. I possess also specimens of this species from the coast of Tartary, collected by Mr. A. Adams.

Head black; clypeus marked with a triangular yellowish-white patch; apex of labrum and jaws obscure fulvous; antennæ two-thirds the length of the body; basal joints stained beneath and at the apex with obscure fulvous, second and three following joints fulvous, the rest black. Thorax twice as broad at the base as long; sides obliquely converging from base to apex; surface transversely convex, subconic, finely punctured. Scutellum trigonate. Elytra equal in width to the base of the thorax, parallel; sides feebly lobed at the base; upper surface convex, much more strongly punctured than the thorax, the punctures often piccous; each elytron with the suture and three large spots, viz. two below the base, parallel, and one just below the middle, transverse, black. Legs black; all the thighs marked on the anterior surface, just before the apex, with a yellowish-white spot.

This species must be placed close to *C. cordiger*.

Cryptocephalus instabilis.

Elongatus, parallelus, convexus, niger, nitidus, antennarum basi, clypei maculâ oreque fulvis; thorace distincte punctato, marginibus apicali et laterali (hoc intus emargi-

nato) lineâque longitudinali, ab apice ad disci medium extensâ pallide fulvis; elytris distincte punctatis, punctis irregulariter dispositis; fulvis aut rufo-fulvis, utrisque lineâ suturali maculisque quatuor (2-2 positis) nigris.

Fœm.—Thoracis maculis duabus obliquis, ante basin positis, pallide fulvis.

Var. A. Elytrorum maculis inter se confluentibus.

Var. B. Elytrorum maculis unâ vel alterâ obsoletâ.

Long. 2—2½ lin.

Hab.—Japan, collected by Mr. Moor; without precise locality.

Face punctured, sparingly clothed with adpressed griseous hairs, impressed down the middle with a longitudinal groove; a transverse patch on the clypeus yellowish-white; antennæ robust, nearly three-fourths the length of the body in the ♂, shorter and less robust in the ♀; six lower joints, and the base of the sixth, fulvous; the rest black. Thorax nearly twice as broad at the base as long; sides obliquely converging and very slightly rounded from base to apex; upper surface convex, transversely depressed just before the base, rather closely punctured. Scutellum trigonate, its apex truncate. Elytra parallel; sides feebly lobed at the base, irregularly punctured, each elytron with a sutural line and four spots placed two below the base, parallel, and two just below the middle, also parallel, black. Legs entirely black, with the exception of the coxæ, which are more or less stained with piceous.

This species, which has not been met with by Mr. Lewis, must be placed close to *C. variabilis*.

Cryptocephalus Mannerheimii, Gebl.

Suffr. Lin. Ent. xiv. p. 90.

Hab.—Japan (Mr. Moor); also Southern Siberia.

Cryptocephalus Japanus.

Oblongus, convexus, niger, thorace elytrisque sordide flavo-albis: illo sat crebre punctato, utrîneque vittâ latâ intus leviter emarginatâ, vix ante apicem abbreviatâ, punctisque tribus prope latus, triangulariter positis, nigris; elytris consperse punctatis, utrisque lineâ suturali maculisque quatuor (2-2 dispositis) nigris; pygidio apice fusco-flavo.

Var. A. Elytris sordide flavo-albis, lineâ suturali maculâque parvâ humerali nigris.

Long. $3\frac{1}{4}$ —4 lin.

Hab.—Yokohama. I have also received it without locality from Mr. Moor.

Var. A. Chusan (Mr. A. Adams).

Face rugose-punctate; punctures rather less crowded on the vertex; antennæ entirely black. Thorax twice as broad at the base as long; sides rounded at the extreme base, thence obliquely converging to the apex; upper surface convex, very faintly depressed in front of the scutellum, somewhat closely impressed with small, but distinct, oblong punctures; on either side the medial line is a broad black vitta, which extends from the base very nearly to the apical margin of the thorax; its inner edge is broadly but slightly, emarginate; placed in a triangle on the middle of the space between this vitta and the lateral margin are three small black spots, the innermost being usually confluent with the vitta. Scutellum narrowly triangular, smooth and shining. Elytra scarcely broader than the base of the thorax, parallel; sides slightly lobed at the base; above convex, thickened in the immediate neighbourhood of the scutellum; distinctly and somewhat closely punctured, the punctures indistinctly arranged in striæ at the base, irregularly scattered over the rest of the surface; each elytron with a narrow sutural line, abbreviated just before reaching the apex, and four large spots black; the latter are arranged as follows: two oblong, placed below the base, the first half-way between the suture and the humeral callus, the second on the callus itself, and two placed transversely below the middle, one sublinear, near the suture, the other larger and irregularly ovate, half-way between the suture and outer margin. In some specimens these patches are larger, and the inner one of the second row is confluent with the sutural line. The small spots on the sides of the thorax are also sometimes confluent.

This insect is very closely allied to *C. Mannerheimii*, Gebler; and also to *C. bivittatus* of the same author.

♂ *Cryptocephalus approximatus*.

Anguste oblongus aut oblongus, convexus, niger, supra viridi-cæruleus aut cæruleus, metallicus, antennis (basi fulvâ exceptâ) nigris; capite inferiori, coxis, femoribus basi tibiis-

que anticis intus, fulvis; thorace nitido, tenuiter punctato, lateribus apice flavo-albis; elytris sat fortiter consperse punctatis, punctis prope suturam, præsertim apicem versus, subseriatim dispositis.

Mas.—Facie inter oculos maculâ bifurcatâ fulvâ ornatâ; femoribus anterioribus quatuor antice fulvis.

Fæm.—Facie inter oculos immaculatâ; clypeo maculâ viridi-cæruleâ, superficiem plus minus amplexente ornato.

Var. A. *Mas.*—Maculâ inter oculos obsoletâ.

Var. B. *Fæm.*—Clypeo toto (margine inferiori excepto) viridi-cæruleo.

Long. 2—2 $\frac{1}{3}$ lin.

Hab.—Nagasaki, on Spanish Chestnut; apparently common.

Head punctured, front impressed with a longitudinal groove; antennæ in the ♂ equal in length to the body, shorter in the ♀; four lower joints obscure fulvous, stained with piceous above, the rest black. Thorax twice as broad at the base as long; sides rounded at the extreme base, thence obliquely converging and slightly rounded to the apex; disk convex, minutely, but not closely, punctured; the interspaces shining, impunctate; extreme lateral margin edged on its anterior half with yellowish-white in the ♂ (in some specimens a faint trace of the same colour is seen along the whole length of the border); in the ♀ the border is concolorous with the disk, the anterior angles alone being yellowish-white. Scutellum subpentagonal. Elytra parallel, not broader than the base of the thorax, sides moderately lobed at the base; above convex, conjointly excavated below the scutellum, coarsely punctured, the puncturing on the inner disk indistinctly arranged in longitudinal striæ; interspaces on the anterior half of the surface transversely wrinkled. Body beneath black, clothed with adpressed hairs; coxæ and the extreme bases of the thighs fulvous in both sexes; the extent of this colour varies greatly; the coxæ frequently stained with piceous, anterior tibiæ sometimes entirely black.

Very closely allied to *C. cærulescens*; larger and more robust; the colouring of the lower portion of the face and the form of the ♂ organ also different.

Cryptocephalus fortunatus.

Anguste oblongus, convexus, supra viridi-, aut cæruleo-metallicus, æneo-micans, antennis nigris, his basi, facie inferiori plagâque bifurcatâ inter oculos flavis, thoracis

marginibus laterali et apicali elytrorumque lateribus basi, flavo-albis; thorace convexo, nitido, ante basin obsolete transversim depresso, tenuiter et remote punctato; elytris fortiter, consperse punctatis, punctis apicem versus subseriatim dispositis; interstitiis ante medium transversim rugulosis; subtus niger, epimeris anticis pedibusque fulvis, femoribus dorso, tibiis margine exteriori tarsisque piceo-tinctis.

Var. A. *Fam.*—Thoracis margine apicali flavo-albo obsoleto.

Var. B. Pedibus totis fulvis.

Long. $2\frac{1}{2}$ —3 lin.

Hab.—Hiogo, Japan; also Chusan, brought over by Mr. A. Adams.

Head distantly punctured, impressed on the front with a longitudinal groove, the lower half of the face, and a bifurcate patch, the branches of which extend upwards on either side to the inner and upper angle of the eye, fulvous; antennæ equal to the body in length in the ♂, shorter in the ♀, four lower joints fulvous, the rest black. Thorax rather more than twice as broad at the base as long, sides rounded and converging from base to apex; above convex, slightly and transversely depressed in front of the scutellum, disk shining, impressed with very fine, remote punctures, which are visible only under a lens. Elytra coarsely punctured, the punctures near the suture arranged in ill-defined striæ.

This species may be separated from *C. Kulibini*, the only insect with which it can be confounded, by the bright, shining, nearly impunctate thorax, and by the yellow line running along the basal half of the lateral border of the elytra.

Cryptocephalus permodestus.

Anguste oblongus, convexus, viridi-cyaneus, metallicus, antennis nigris, his basi, facie inferiori trochanteribusque flavis; thorace convexo, fortiter subcrebre punctato; elytris fortiter punctato-striatis, interstitiis hic illic tenuiter impresso-strigosis.

Long $1\frac{2}{3}$ lin.

Hab.—Nagasaki.

Very nearly allied to *C. fulcratus*. At once to be known from that insect by the convex, deeply punctured thorax. Forehead and upper half of face rugose, closely and deeply punctured; clypeus and face on either side pale

yellow; antennæ longer than the body, slender, filiform, third joint distinctly shorter than the fourth, four basal joints yellow, stained above with piceous; labrum shining black; jaws piceous. Thorax nearly twice as broad at the base as long; sides very slightly sinuate in the middle, obliquely converging from base to apex, more quickly converging at the extreme apex, the outer margin faintly and irregularly notched, anterior angles armed with a short, slightly reflexed tooth; upper surface convex, covered with large deeply impressed punctures; lateral edge broadly margined, its surface rugose. Scutellum narrowly triangular, smooth, impressed with a few deep punctures. Elytra deeply punctate-striate, interspaces smooth, slightly thickened towards the apex, impressed here and there with very faint irregular striæ.

Cryptocephalus amatus.

Anguste oblongus, convexus, obscure viridi-cæruleus, metallicus, subtus nigro-cæruleus, facie inferiori flavo, antennis nigris, basi obscure fulvis, ore piceo; thorace convexo, disco utrinque pone medium late sed leviter excavato, fortiter punctato, punctis ad apicem et latera versus suberebre—disco magis remote—dispositis; elytris fortiter punctato-striatis, interstitiis leviter elevatis, irregulariter elevato-strigosis.

Long. 2 lin.

Hab.—Japan, a single specimen, collected by Mr. Moor.

Head above the insertion of the antennæ deeply punctured, front impressed with a longitudinal groove; clypeus and the face on either side flavous; antennæ equal in length to the body, filiform, the third joint scarcely two-thirds the length of the fourth; four lower joints obscure fulvous, stained with piceous above. Thorax twice as broad at the base as long; sides rounded and converging from just before the base to the apex, anterior angles armed with an obtuse tooth, lateral margin entire; above convex, deeply but less coarsely punctured than *C. permodestus*, the punctures somewhat crowded at the apex and on the sides, more distant on the disk, hinder half of the latter broadly but faintly excavated on either side the medial line; lateral border broadly margined, its surface rugose. Elytra deeply punctate-striate, interspaces slightly thickened, covered with coarse ill-defined irregular transverse wrinkles.

The present insect differs from *C. flavilabris*, the species to which it is most closely allied, by the deeply punctured striae on its elytra.

Whilst *C. fortunatus* and *approximatus* represent in Japan *C. nitidulus* and its allies, *C. permodestus* and *amatus* replace *C. flavilabris*, *fulcratus* and *janthinus*.

Cryptocephalus discretus.

Subelongatus, antice angustatus, subcylindricus, niger, antennis basi flavis, ore, thoracis margine antico pedibusque quatuor anticis obscure fulvis, posticis piceis; thorace elytrisque nigro-cæruleis, metallicis, illo evidenter minus remote punctato, utrinque transversim depresso; his fortiter punctato-striatis, interstitiis lævibus, convexis.

Var. A. Thoracis margine antico disco concolore.

Var. B. Femoribus intermediis dorso infuscatis, thorace ut in Var. A.

Long. $1\frac{1}{2}$ lin.

Hab.—Var. B, Tsu Sima (Adams); the type and Var. A from Chusan, collected in both localities by Mr. A. Adams.

Head smooth, finely and remotely punctured, lower half of clypeus and mouth obscure fulvous; cheeks and five lower joints of antennæ yellow, sixth and seventh joints pale piceous, the rest black. Thorax twice as broad at the base as long, sides obliquely deflexed and nearly parallel on their hinder half, thence slightly rounded and obliquely converging to the apex; basal margin very slightly concave on either side, basal lobe scarcely produced, broadly truncate; upper surface convex, transversely depressed on either side on the middle of the outer disk, distinctly but not very closely punctured. Scutellum large, trigonate, shining black. Elytra oblong, equal in width to the thorax at the base, gradually increasing in width from thence to beyond their middle, thence broadly rounded to the apex; above convex, strongly punctate-striate; interspaces slightly convex on the inner disk, strongly raised and subcostate on the outer disk and towards the apex of the elytron.

Near *C. pallifrons*, larger and more deeply punctured.

Cryptocephalus amicus.

Elongatus, subcylindricus, nigro-piceus, facie inferiori, antennis basi pedibusque flavis; thorace nitido, sub lente minute punctato; elytris sulcato-striatis, striis sat fortiter punctatis, punctis oblongis, interstitiis convexis.

Long. $1\frac{1}{4}$ lin.

Hab.—Nagasaki; a single specimen in Mr. Lewis's collection; I also possess two specimens from the Angara River, Eastern Siberia.

Lower portion of the face flavous; five lower joints of antennæ the same colour, six outer joints nigro-piceous; forehead slightly swollen, finely but distantly punctured when seen under a lens, impressed in the middle with a faint longitudinal groove. Thorax nearly twice as broad at the base as long, sides at the base subparallel, thence obliquely converging and slightly rounded to the apex, hinder angles produced posteriorly, acute; above convex, minutely punctured. Scutellum trigonate. Elytra not broader than the base of the thorax, parallel in front, slightly narrowed towards the apex; sides feebly lobed at the base, above convex, sulcate-striate, the sulci each impressed with a single row of oblong punctures; interspaces thickened, subcostate.

This species will come into the same group as the preceding.

Genus PACHYBRACHYS, Chevr.

Suffr. Lin. Ent. iii. 111.

Pachybrachys eruditus.

Anguste oblongus, subcylindricus, subtus niger, supra sordide fulvo-flavus, antennis extrorsum nigris; thorace ante basin transversim depresso, fortiter piceo-punctato, signaturâ nigro-piceâ literam M mentente ornato; elytris fortiter punctatis, punctis piceis, fortiter impressis, subseriatim dispositis, interstitiis apicem versus leviter incrassatis.

Long. $2\frac{1}{2}$ —3 lin.

Hab.—Nagasaki; Lepideza.

Head strongly punctured, the punctures piceous, the vertex, a longitudinal stripe on the front, a small space at the base of the antennæ, together with the anterior edge of the clypeus, pitchy black; antennæ slender, the six outer joints black, the rest fulvous, stained above with

piceous. Thorax more than twice as broad as long; sides rounded, obliquely converging before the middle; disk transversely convex, transversely depressed in front of the scutellum, strongly impressed with large piceous punctures; on the disk is a large, ill-defined, pitchy-black marking, often interrupted, which resembles somewhat the capital letter M. Scutellum black, its disk flavous. Elytra not broader than the thorax, parallel, sides slightly lobed at the base; above convex, deeply impressed with round pitchy-black punctures, which are arranged in irregular longitudinal rows; the interspaces towards the apex, where the striae become nearly regular, are slightly convex; the suture is edged with a very narrow black line. Tarsi more or less stained with fulvous.